DOCUMENT RESUME

ED 205 085 HE 014 111

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TITLE An Enrollment Impact Study to Determine Whether to Implement Lower Divisions at Four Upper Division State Universities. AIR Forum 1981 Paper.
PUB DATE May 81
NOTE 20p.; Paper presented at the Annual Forum of the Association for Institutional Research (21st, Minneapolis, MN, May 17-20, 1981).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Freshmen; Community Colleges; Competition; *Educational Demand; Enrollment Influences; Enrollment Trends; Higher Education; Private Colleges; Public Policy; *State Universities; *Statewide Planning; *Two Year Colleges; *Upper Division Colleges
IDENTIFIERS *AIR Forum; *Florida; *Florida International University; University of North Florida

ABSTRACT

A market impact analysis was performed to determine the potential enrollment loss for all sectors of postsecondary education in Florida that would result in allowing four upper-division state universities to implement new lower divisions. Additionally, the history leading up to this request by the upper division colleges and the pros and cons for implementing the lower divisions are considered. For each of the four institutions an impact study was completed which assessed the number of freshmen from a region for each college or university affected by a lower division, the total number of freshmen enrolled at each college or university, and the number of lower division students being requested for the new lower divisions. Estimates were made of the worst case impact on the surrounding institutions (loss to the state system, the community college system, and the private sector), because it assumes that the new lower divisions will achieve their first year enrollment growth by reducing the student population at other institutions. Two of the four studies are discussed: Florida International University and University of North Florida. The other schools are Florida Atlantic University and University of West Florida. The results suggest that no single sector will be too severely affected by opening new lower divisions; however, expected declines in the number of Florida high school graduates may make the situation more serious for any of the three sectors if the lower divisions are approved. (SW)

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AN ENROLLMENT IMPACT STUDY TO DETERMINE WHETHER TO IMPLEMENT LOWER DIVISIONS AT FOUR UPPER DIVISION STATE UNIVERSITIES

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HE 014 111

A Paper presented at the Annual Forum of the Association for Institutional Research

Minneapolis, Minnesota
May 17-21, 1981

THE ASSOCIATION FOR INSTITUTIONAL RESEARCH

This paper was presented at the Twenty-First Annual Forum of the Association for Institutional Research held at the Leamington Hotel in Minneapolis, Minnesota, May 17-20, 1981. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Mary Corcoran
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(Editor, AIR Forum Publications)

ABSTRACT

In Florida four upper division state universities are requesting lower divisions. This paper discusses the history leading up to the requests and the pros and cons for implementing the lower divisions. A market share analysis was performed to determine the potential enrollment loss to all of the sectors involved. The methodology and results are included in this paper. The analysis demonstrated in this paper can be useful when determining whether to open or close new programs, branch campuses or new universities.

An Enrollment Impact Study to Determine Whether to Implement Lower Divisions at Four Upper Division State Universities

Introduction

Florida's public higher education has two major components, nine state universities and 28 community colleges. The community colleges provide the majority of the lower division instruction, with the universities concentrating primarily on upper divisions and graduate work. Presently, four of the nine institutions do not have lower levels. This concept is a two-plus-two system because the majority of students take their lower level coursework at a community college and then transfer to an upper level institution. The two-plus-two system has required good articulation of academic programs between the State University System of Florida and the community colleges to work effectively.

Pressure to add lower divisions to the four upper division universities in the State University System has been building for the last few years. In early 1979 Florida International University requested the Board of Regents to authorize a lower division for them. The Board agreed to study this request during 1979 and make a decision based on this report. During the 1979 legislative session, the legislature directed the Board of Regents to study the effect of adding lower divisions to the four upper division universities and submit a report to them. As a result of this legislation the Board of Regents had to request a consultant firm to produce a study on upper divisions to be ready by an October 1, 1979 deadline. The Board reaction to the report was in general favorable but they postponed any specific action until those universities which desired lower divisions submitted a proposal. Even though the Board had not recommended any specific action by the legislative session in 1980, the 1980 legislature approved the

introduction of lower divisions with the passage of the Appropriations Bill. Although the Governor vetoed the Higher Education Bill which then eliminated the appropriations for lower divisions, the Governor suggested that the Board of Regents make a decision concerning whether or not to begin lower divisions (Graham, 1980, p.7).

To carry out the Governor's request, a Task Force of the Board of Regents was asked to look at the enrollment impact of these new lower divisons on other nearby institutions with lower divisions. If the four upper division state universities without lower divisions started lower divisions, how would this affect the enrollment of the five remaining universities that currently have lower divisions? Would the addition of four lower divisions alter the articulation agreement with the community colleges? Would the new lower divisions duplicate programs in the private sector, causing enrollment loss to these private institutions?

In order to examine these questions, this study will first provide the background which is necessary to understand the issues surrounding the introduction of lower divisions to upper divisisons. Second, an analysis will be presented to help reveal the enrollment impact on the institutions surrounding the upper divisions and the final section will relate the reactions by various state agencies and the state government.

Two-Plus-Two System

The four upper division universities were established to take advantage of the already established community college system. The two-plus-two arrangement reflects the linkage between a two year program at the community college and the two years at the upper division university.

> Instead of increasing the number of traditionally conceived four-year universities, whose first two years would in a large measure be a duplication of lower division programs, the State University System decided to add upper division institutions in order to utilize more effectively the output of Florida's extensive community college structure. (Board of Regents, 1969, pp. 11-12)

The present articulation agreement provides for a relatively smooth transition from the community college system to the university system provided the student has received the Associate of Arts degree.

> In general the two-plus-two arrangement for public baccalaureate education has worked effectively in Florida. The four upper division universities have been an important part of this development. (Education Commission of the States, 1979, p.6)

Other studies suggest that the two-plus-two system has a high academic success rate for transfer students. In a study written in 1979 (Losak & Corson) the authors stated "... that when students are equated on ability before beginning their collegiate work, there is no significant difference in performance at the junior and senior year between community college graduates and those beginning their careers in the university."

Other studies of community college transfers by other universities over a period of three years confirm the academic success of community college transfer students. Clearly, the issues of whether or not to implement lower divisions is not due to evidence that community college transfers are having academic difficulties at the university.

Reasons for Implementing Lower Divisions at Upper Division Universities

For several years there has been increasing political pressure exerted by the legislative delegations from the areas in which the upper division institutions are located to begin lower divisions. Since three out of the four upper division institutions are located in rapidly growing urban locations, the legislative representatives argued that urban place-bound students were being denied a four-year experience that was available in other parts of the state. Students in these urban areas either had to forego a traditional four-year experience or seek other options in the immediate vicinity in either the private or public sector. The legislators also argued that four-year institutions would improve the economic attractiveness of the region.

Administrators from upper division institutions have presented additional reasons for starting lower divisions. They point out that a number of professional programs (e.g., engineering or fine arts) are better taught if the curriculum is provided over a period of four years. The upper division institutions could attract more students with an interest in liberal arts and make better utilization of the arts and science faculty, who tend to be underused in a heavily oriented professional curriculum.

A four-year institution would also provide more extracurricular opportunities and social growth in a four-year program because they would attract more young full-time students than they presently recruit. Finally, upper division institutions would improve their ability to recruit if the image was more traditional. Students don't understand the relatively unfamiliar idea of an upper division college and many freshmen make a decision to follow a four-year program thus eliminating the

possibility that they can be recruited at the upper division in their junior year. The status of an upper division institution prevents the university from attaining the enrollment projections they might otherwise be able to achieve (Education Commission of the States, p.8). University officials feel that the loss of enrollment by community colleges and private universities is exaggerated. They point out that community colleges near lower division universities are not suffering from low enrollments. With the limited enrollments and high admission standards, the effect will be minimal on the surrounding institutions.

Reasons for Not Implementing Lower Divisions

Opponents of lower divisions maintain that since the two-plus-two system is working, and there are no educational needs not being met in the community, there is no demonstrated need for lower divisions. While it might be desirable to offer four-year programs, they are not essential and not a good use of scarce resources.

Some community college officials see lower divisions as an attempt to bolster sagging enrollments (Education Commission of the States, p.11). With the traditional college age (18-22) population beginning to level off and decline, upper division institutions are attempting to increase their enrollments at the expense of community colleges and private institutions. Opponents of lower divisions agree with university officials that financing the two systems is designed to be equitable. However, if a lower division in a university attracted Florida students who do not go out-of-state or attend a private college, the cost to the state will be higher. Given the historical trends on appropriations by the legislature, it seems unlikely that additional funds will be made available to fund the increased enrollments for the new lower divisions. If funds must be allocated for lower division growth, the emphasis on quality improvement in other

TABLE 1

Estimating Procedure for Determining the Impact of a New Limited Enrollment Lower Division for First-Time-In-College (FTIC) Students at the Upper Division University on Other Public Universities, Community College and Private Colleges Located in the Same Region

Colleges Affected by a new Lower Division at Upper Division University	Regional Freshmen in Attendance (a)	Total First-Time Enrolled Full-time Freshmen (b)	% of Freshmen Class Who Attend From Region (c) $\frac{a}{B} \times 100$	% of Regional Market Share (d) $\frac{a}{\text{Total Column a}} \times 100$	First-Year Worse-Case Impact (Full-time)Students (e) $\frac{d \times \#\text{requested}}{100}$	Cumulative 2 Yr. Worst-Case Impact (Full-time)Students (f) $e \times 2$	% Impact Upon Present 1st Year Enrollment (g) $\frac{e}{b} \times 100$
Community Colleges							
TOTAL COMMUNITY COLLEGES							
State Universities							
TOTAL UNIVERSITY							
Private Colleges							
TOTAL PRIVATE							
GRAND TOTAL							

programs throughout the State University System will suffer from further enrollment growth.

Methodology

As there are good reasons for implementing or not implementing new lower divisions, a critical question becomes what impact a limited enrollment lower division might have on current lower division enrollments at the surrounding community colleges and private institutions. A regional market share analysis was performed to determine the potential enrollment loss to the State University System, the community college system and the private sector by adding four new lower divisions.

For each of the four institutions requesting a lower division, a regional market share impact study was done. This study estimates the worst case impact on the surrounding institutions because it assumes that the new lower divisions will achieve their first year enrollment growth by reducing the student population at other institutions. Table 1 is an example of the methodology and data used in each study. The data required for each study are as follows:

(1) The number of freshman students from a region at each college or university affected by a lower division.

(2) The total number of freshmen enrolled at each college or university.

(3) The number of lower division students being requested for the new lower divisions.

The market share analysis assumes that there is a total pool of students that is already attending school. This pool of students is redistributed after subtracting out the number of students that will be attending the institution with the new lower divisions. This analysis is a worst case, because it assumes that all of the students will come from

TABLE 2

Impact of a New Limited Enrollment Lower Division for FTIC Students at Florida International University on Other Public Universities, Community Colleges and Private Colleges in the Same Region

Colleges Affected by a New Lower Div. at Florida International University	Regional[1] Freshmen in Attendance (a)	/ Total First Time Enrolled Full-time Freshmen (b)	% of Freshmen Class Composed of Regional (c) $\frac{a}{b} \times 100$	% of Regional Market Share (d) $\frac{a}{623}^1 \times 100$	First-Year Worst-Case Impact (Full-time) Students (e) $\frac{d \times 450}{100}$	Cumulative 2 Yr. Worst-Case Impact (Full-time) Students (f) $e \times 2$	% Impact Upon Present 1st Year Enrollment (g) $\frac{e \times 100}{b}$
Florida Memorial	138	277	50	2.2	10	20	3.6
Barry College	58	233	25	.9	4	8	1.7
Biscayne College	215	326	65	3.5	16	32	4.9
University of Miami	709	1,922	36	11.4	51	102	2.7
TOTAL PRIVATE	1,120	2,758	40.6	18.0	81	162	2.9
Broward Comm. College	1,109	1,531	72.52	17.8	80	160	5.2
Fla. Keys Comm. Col.	46	68	69.3	.7	3	6	4.4
Miami-Dade Comm. Col.	2,223	3,800	58.5	35.7	161	322	4.2
TOTAL COMMUNITY COL.	3,378	5,399	62.6	54.2	244	488	4.5
Florida A & M	105	970	10	1.7	8	16	.8
Univ. of Florida	820	2,900	28	13.1	59	118	2.0
Univ. of South Fla.	233	1,786	13	3.7	17	34	.9
Florida State Univ.	559	2,062	27	9.0	40	80	2.0
Univ. of Central Fla.	16	1,085	1.5	.3	1	2	.1
TOTAL SUS	1,733	8,803	19.7	27.8	125	250	1.4
TOTAL	6,231	16,960	36.7	100.0	450	900	2.7

[1]Regional Freshmen are students who graduated from high schools in Dade, Broward, and Monroe Counties.

within the region, and that only students currently in school will enroll. In reality, some students from out-of-region or out-of-state will probably enroll in the new lower division, along with new students enrolling who are not currently enrolled in any school.

Although an analysis was done for all four institutions requesting a new lower division, for the purpose of this paper, only two of the studies will be discussed: Florida International University and University of North Florida. Florida Atlantic University has given its proposal for a new lower division a low priority and the analysis for University of West Florida has special concerns, inherent only to that university.

The local recruitment area which will be affected by Florida International University's lower division is composed of three counties: Dade, Broward, and Monroe. (See Table 2.) The three educational sectors that could be affected by lower divisions at Florida International University would be private colleges, community colleges and the state universities. The analysis in Table 2 shows that of the 16,960 freshmen attending the listed universities, 36.7% or 6,231 of the freshmen are from either Dade, Broward or Monroe Counties. The community colleges enroll the largest percentage (54.2%) of the regional market. The number of students expected to be lost for each university is estimated for the first year, and then doubled for the second year. In the Florida International University case, Broward Community College is expected to have the greatest loss of students, with 5.2% of students normally expected to enroll at Broward being projected to attend the new Florida International University lower division. For the university system, University of Florida and Florida State University would expect the greatest loss (2.0%).

TABLE 3

Impact of a New Limited Enrollment Lower Division for FTIC Students at the University of North Florida on Other Public Universities Community Colleges and Private Colleges in the Same Region

Colleges Affected by a New Lower Div. at the University of North Florida	Regional[1] Freshmen in Attendance (a)	Total First Time Enrolled Full-time Freshmen (b)	% of Freshmen Class Composed of Regional (c) $\frac{a}{b} \times 100$	% of Regional Market Share (d) $\frac{a}{1941} \times 100$	First-Year Worst-Case Impact (Full-time) Students (e) $\frac{d \times 250}{100}$	Cumulative 2 Yr. Worst-Case Impact (Full-time) Students (f) $e \times 2$	% Impact Upon Present 1st Year Enrollment (g) $\frac{e}{b} \times 100$
Jacksonville Univ.	205	864	23.7	10.6	27	54	3.1
Edward Waters College	100	204	49.0	5.2	13	26	6.4
Flagler College	95	203	46.8	4.8	12	24	5.9
TOTAL PRIVATE	400	1,271	31.5	20.6	52	104	4.1
Fla. Jr. College	923	1,079	85.5	47.5	118	236	10.9
St.John's River C.C.	54	144	37.9	2.8	7	14	4.9
TOTAL COMMUNITY COLLEGE	977	1,223	79.8	50.3	125	250	10.2
University of Florida	222	2,900	7.7	11.4	29	58	1.0
Florida State	207	2,062	10.0	10.7	27	54	1.3
Florida A & M	80	970	8.2	4.1	10	20	1.0
University Central Fla.	7	1,085	.6	.4	1	2	.1
University of S. Fla.	48	1,785	2.7	2.5	6	12	.3
TOTAL SUS	564	8,803	6.4	29.1	73	146	.8
TOTAL	1,941	11,297	17.2	100.0	250	500	2.2

[1]Regional Freshmen are students who graduated from high schools in St. Johns, Clay, Nassau, and Duval counties.

The local recruitment area for the University of North Florida (Table 3) is composed of St. Johns, Clay, Nassau and Duval Counties. Like Florida International University, the community college system will stand to lose the greatest number of students (10.2%) if University of North Florida had a lower division. The private colleges in the University of North Florida service area will have a higher loss than is expected for Florida International University, with the loss at the State University System being minimal.

It appears that no single sector will be too severely affected by opening new lower divisions. However, projections of the Florida high schools graduates are expected to decline 7.2% from 1980 to 1985. The effects of this decline compounded with students attending the new lower levels could make the situation more serious for any of the three sectors if the lower divisions are approved.

Reaction by State Agencies

The Task Force on "University Structure" which reviewed the issues and data related to the addition of lower divisions recommended to the Board of Regents that they choose between two options. The first option was to not make any change in the present system. If change is recommended, then the Board should implement lower divisions to enhance quality within the State University System enrollment limitations and a specific programmatic emphasis (Task Force Recommendations, December 29, 1980, p. 34).

On January 9, 1981 the Board of Regents authorized lower divisions to begin as early as Fall 1981. Freshman enrollment was to be limited and admission requirements were to be high.

> The implementation of new lower divisions should be done in cooperation with adjacent independent colleges and universities and community colleges through local articulation agreements with provisions for joint faculty, dual enrollment, cooperative programs, etc. as may be feasible, to make maximum use of existing faculty and facilities, and should be subject to legislative funding. (Policy Studies, January 9, 1981, p. 27)

In February Governor Bob Graham stated that he would go along with the Board of Regents' recommendation to allow three of Florida's upper division universities to begin lower divisions. Governor Graham stressed the need to limit the number of new admitted students so that an unhealthy competition would not develop between the community colleges and the universities with lower divisions (St. Petersburg Times, February 21, 1981, p. 158).

The Postsecondary Education Planning Commission (PEPC), after several months of study and discussions, has suggested that the introduction of new lower divisions would not be a good use of state funds at this time. Whether lower divisions should be introduced later nas still to be settled. Their decision along with the other agencies' recommendations will be debated by the legislature during the 1981 session. Action by the legislature will probably center on how the growth of lower division enrollments will impact the community colleges and private institutions surrounding the universities which are implementing the lower divisions.

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